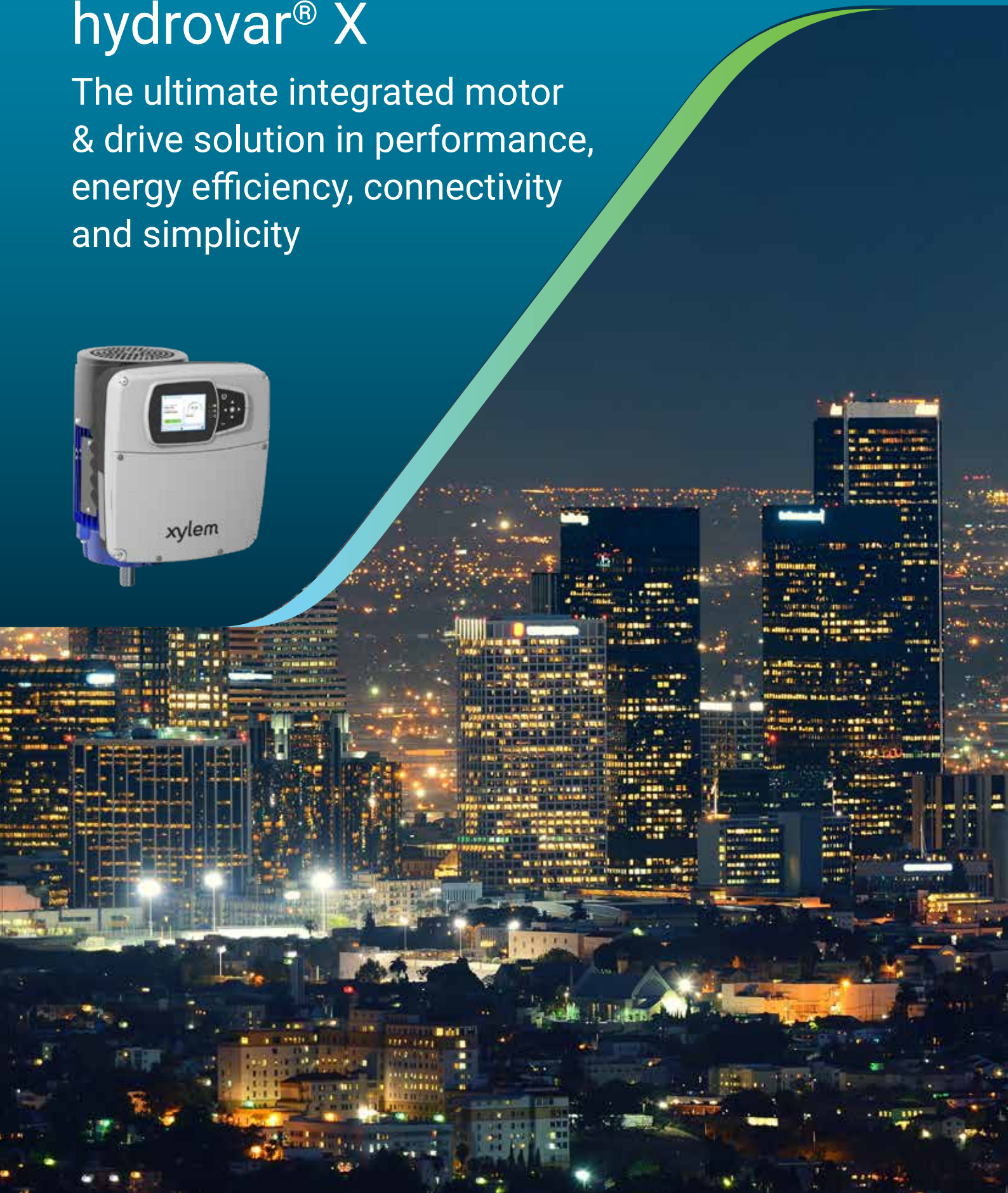


xylem



hydrovar® X

The ultimate integrated motor
& drive solution in performance,
energy efficiency, connectivity
and simplicity



The ultimate integrated motor & drive solution in performance, energy efficiency, connectivity and simplicity

Xylem is a leading global water technology company committed to solving critical water and infrastructure challenges through innovation. By providing smart and cutting-edge technology, we are reducing energy consumption to minimum possible levels and increasing sustainability.* There is one thing that Xylem shares with the greatest engineering innovators; that's the continuous investment into new products that is reflected in outstanding solutions. You can find all these features in hydrovar® X, the answer to innovation, sustainability and user friendliness all-in-one.

hydrovar® X delivers the best in energy efficiency performances with its frequency converter coupled with the ultimate synchronous motor, manufactured by Xylem - integrating decades of expertise and know-how in pumping solutions. It's the right combination of motors, variable speed drives and pumps that can provide great performance, maximum savings and a rapid return on investment.



*Reference
[Xylem Sustainability Report 2024](#) (page 26)



						
e-SV hydrovar® X	e-SVI hydrovar® X	e-HM hydrovar® X	GHV hydrovar® X	e-NSC hydrovar® X	e-SH hydrovar® X	e-LNE/T hydrovar® X
Vertical multistage stainless steel pumps	Immersible multistage pumps	Horizontal multistage pumps	Variable speed booster sets	End suction pumps	End suction pumps in stainless steel	In-line pumps, single and twin head

Sustainable

hydrovar® X is a green technology solution, providing best-in-class efficiency. No rare earth metals are used, minimising its environmental footprint. Xylem accepted the challenge to fight availability and environmental concerns with a smarter technology that provides superior performance with a green heart.

Easy

The intuitive setup assistant makes it the easiest drive to commission and operate, guiding you step by step for single or multi-pump configurations. With automatic addressing, multi-pump systems are just as easy to service and configure as single pumps.

The multi-pump mode automatically shares settings across all units, ensuring easy & quick setup. Firmware upgrades can be done directly via the mobile app in new installations or by cloning, keeping your system always up to date.

Intelligent pump solution

Integrated functions protect the pump and motor while improving the quality of energy from the grid. At the same time, our pumps are equipped with smart control modes that adapt to system demands. All of this means excellent energy saving from a compact, easy-to-use solution suited to nearly any application.

We've expanded the impressive list of features to another level:

- Multi-language graphic colour display
- Preset from factory, plug-and-play
- Automated intuitive start-up menu with on-screen guidance
- IE5 motor with advanced control for maximum efficiency and extended motor life
- Intelligent multi-pump capability for up to 8 pumps with no single failure point
- Auto-addressing, multi-master, parameter sets and backup configuration for easy multi-pump management
- Linear & Quadratic pressure control to optimise energy savings
- Cybersecurity certified with three layers of security
- Remote control and management via the Xylem X app, with offline, commission-free firmware upgrades
- PC tool available for updates, upgrades & spare part management.
- Stay ahead with continuous updates and new features via the Xylem X app.

Select the right solution for you

hydrovar® X is simple to use yet sophisticated and robust, embracing the most common applications to the most demanding ones.

hydrovar® X+ option makes even the most complex applications easy to fulfill.



DISPLAY

LED display	•		
Graphic color display		•	•

CONTROLS

Pressure	•	•	•
Proportional Pressure		•	•
Flow		•	•
Temperature		•	•
Level		•	•
PI Control	•	•	•
hydrovar® ramp control	•	•	•

MULTI-PUMP

Up to 4 pumps	•		
Up to 8 pumps		•	•

PROTECTION DEGREE

IP55/NEMA 4	•	•	
IP66/ UL 12/4X			•

OPERATING TEMPERATURE

-20 to 50 °C (- 4 to 122 °F)	•	•	•
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EMBEDDED COMMUNICATION PROTOCOLS

Modbus RTU	•	•	•
BACnet MS/TP	•	•	•

FEATURES

IE5 synchronous motor	•	•	
Standard set of I/Os	•	•	•
Extended I/Os		•	•

FUNCTIONALITY

Pipe filling		•	•
Setpoint shift		•	•
Parameter set		•	•
Auto addressing		•	•

MOBILE APP

wireless communication	•	•	•
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Discover hydrovar[®] X



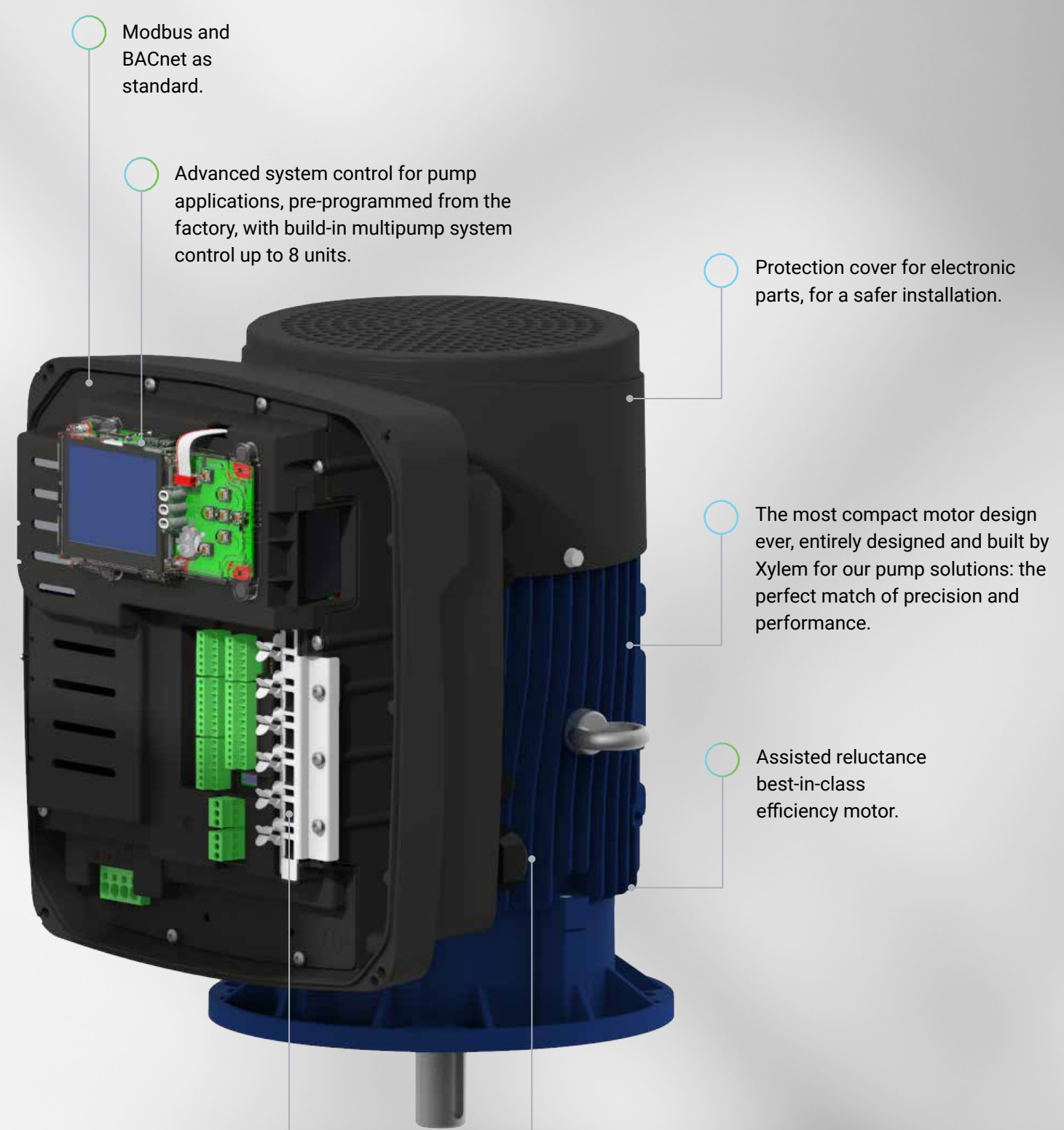
You're in control with a backlit graphic color display or seven segment display, within an IP55 cover. Three visual LED options for immediate unit status, with a keypad to navigate and quickly set up your unit.

Easy to commission, with a full set of languages.

Mobile app for smartphone.

Wiring chamber for a quick access to terminals.

Solutions	Benefits
Motor with embedded variable speed drive	Optimized motor & drive footprint Increased robustness and operation window, down to -20°C Maximum integration enabling dynamic control at the optimal duty point anytime
Smart device	Onboard IoT for user-friendly installation & operation Extensive monitoring connectivity capabilities Minimized inventory due to flexible spare parts management
Vast expertise in pump & motor manufacturing	Dedicated solution for pump applications



Modbus and BACnet as standard.

Advanced system control for pump applications, pre-programmed from the factory, with build-in multipump system control up to 8 units.

Protection cover for electronic parts, for a safer installation.

The most compact motor design ever, entirely designed and built by Xylem for our pump solutions: the perfect match of precision and performance.

Assisted reluctance best-in-class efficiency motor.

Multiple cable glands available for easy access.

Full set of I/Os to fulfil even the most demanding application



Don't hold back your imagination.

With the graphical color display you can quickly set-up and navigate the menu of your unit: check all the parameters and choose the perfect unit configuration to fit your installation. No time to do it? Genie will start up and run the unit for you!



Xylem X, mobile App for smartphones available for download.

Digital transformation starts with Xylem Vue

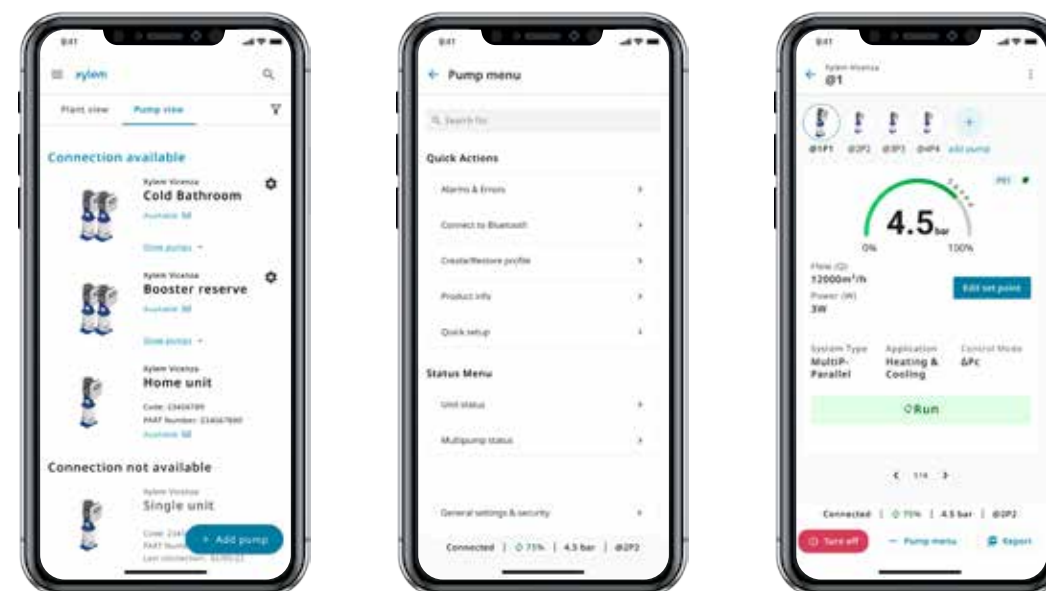
Digital adoption is no longer an option; it's an urgent reality to meet the increasing pressures you face. hydrovar® X is an important part of our full suite of digital solutions, Xylem Vue, that combines smart and connected technologies, intelligent systems and services, and 100+ years of problem solving expertise. Xylem Vue helps solve your most pressing water challenges and deliver transformative outcomes for your communities – faster and more affordably. Let's see what's possible for you, and let's do it together.

For more information on Xylem Vue, go to xylem.com/XylemVue



Set up the unit with the color display or with the app on your mobile phone. Stay connected!

Check your systems from wherever



hydrovar® X and Avensor, better together!

hydrovar® X can communicate with Avensor, Xylem IoT platform enabling to have a complete overview of all connected assets, anytime, anywhere. Avensor collects historical data to analyze trends and generate

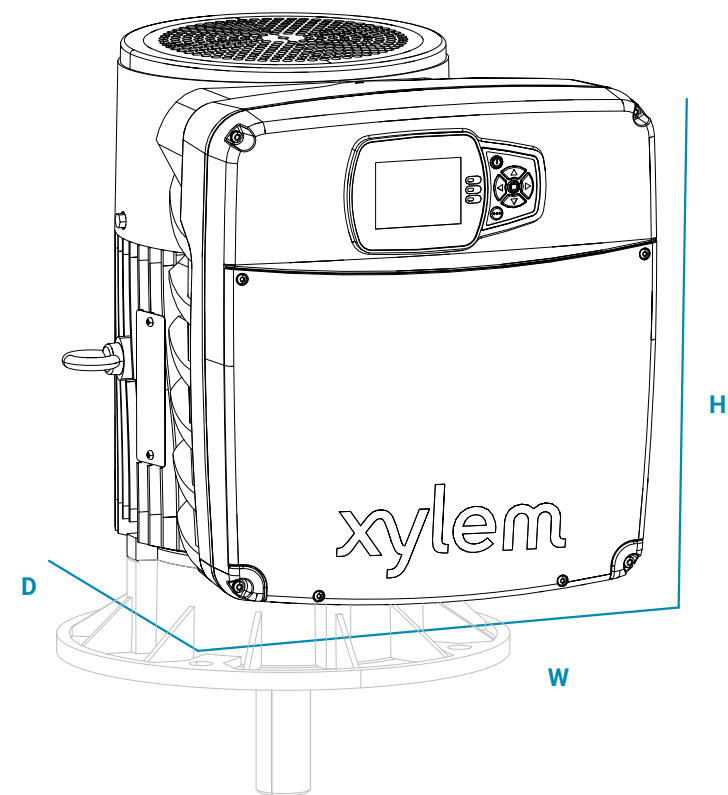
alerts preventing failures and equipment downtime. You get the right insights to make smarter decisions with the remote and on-site support from Xylem and our partners.

(More details about Xylem Avensor on page 19)



Scan for more about remote monitoring

Dimensions



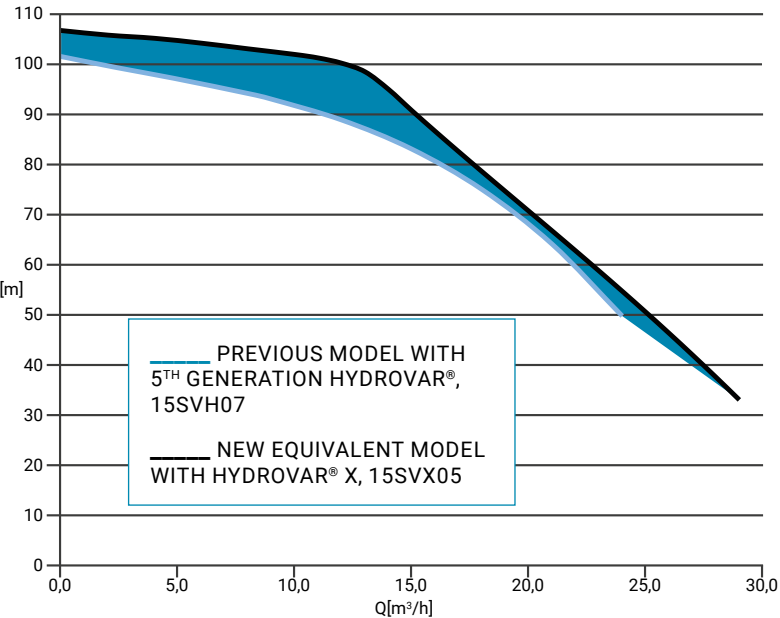
Motor power in kW	H (mm)	H (mm)	H (mm)
3 - 5.5	289	256	284
5.5 - 11	329	302	351
11 - 22	400	362	442

Electromagnetic compatibility (EMC): hydrovar® X complies with the product standard EN IEC 61800-3:2018, with emission in Category C2 and immunity suitable for second environment (e.g. industrial areas). It also meets THDi requirements according to IEC 61000-3-12. A version without RFI filter, suitable for IT mains, is available.

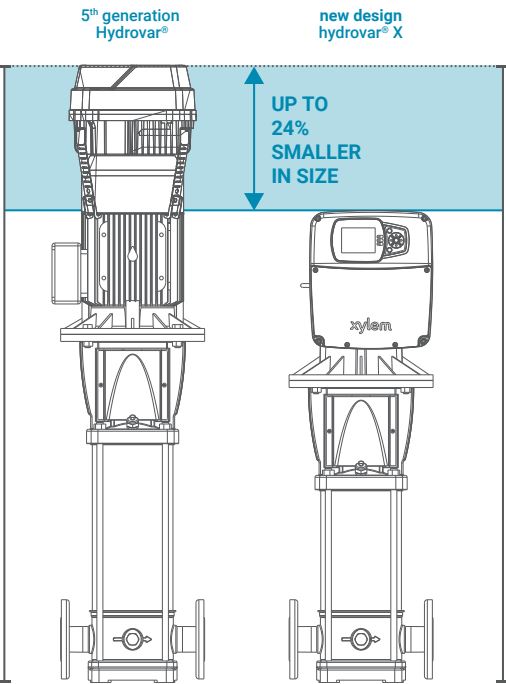


FOR MORE TECHNICAL DETAILS ABOUT YOUR PUMP SCAN HERE

Extended working performances



hydrovar® X curve vs traditional 50Hz curve



hydrovar® X offers higher performance with a reduced footprint even compared to the legacy 5th generation hydrovar® solution.

Technical features



INPUTS & OUTPUTS

Analog inputs	2	4	4	4
Analog outputs	1	1	1	1
Analog I/O configurations				
0-20mA/ 0-10V	•	•	•	•
4-20mA/ 2-10V	•	•	•	•
Digital inputs	3	5	5	5
Relay	2	2	2	2
Relay 1 up to 240 VAC 0.25A or 30 VDC 2A	•	•	•	•
Relay 2 up to 30 VAC 0.25A or 30 VDC 2A	•	•	•	•
10 V supply		•	•	•

COMMUNICATION

RS485 port	2	2	2	2
Bluetooth	•	•	•	•

VOLTAGE & POWER

3x200-240V 3x380-480V	3x200-240V 3x380-480V	24V DC	24V DC 115-240V AC
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LEAKAGE CURRENT

<= 3.5 mA	<= 3.5 mA	<= 3.5 mA	<= 3.5 mA
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e-SV

The e-SV fabricated stainless steel vertical multistage pump is an energy saving, nonpriming pump built to withstand a variety of mechanically aggressive and high temperature liquids, and is designed to extend uptime and help reduce lifecycle costs in a wide range of demanding applications. The e-SV pump is one of the highest efficiency multistage pumps on the market today.

It features 11 different sizes from 1 to 125 m³/h, and each can be specially configured for a wide range of environments. This fabricated vertical multistage pump is also easy to install and economical to maintain.

When it comes to efficiency, the e-SV delivers.

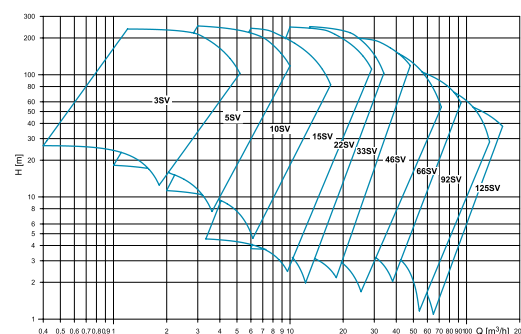
e-SV multistage pumps have a history of performance handling water and liquids such as glycol, oils/solvents, and more in the industrial, municipal, commercial building services and agricultural markets.

Take the efficiency and low lifetime costs of e-SV multistage pumps to new levels with hydrovar® X – first-class pump management that optimises connectivity, sustainability and performance.



SCAN HERE FOR
TECHNICAL DETAILS

Performance Curve



Specifications

- Flow rate: up to 160 m³/h
- Head: up to 260 m
- Temperature of pumped liquid: up to +120°C
- Maximum operating pressure 16, 25 or 40 bar (PN 16, PN 25 or PN 40)
- The hydraulic performances meet the tolerances specified in ISO 9906:2012
- Environment temperature: -20° C to +50° C with no performance derating



e-SVI

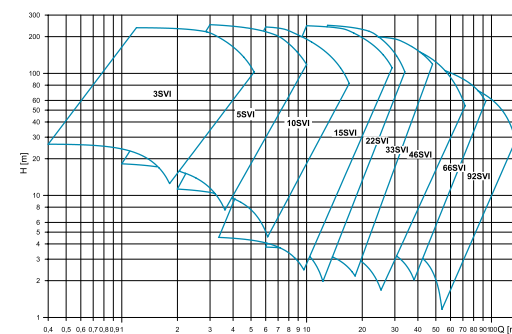
The e-SVI is an efficient, reliable, high-performance pump specially designed to be mounted on the top of a tank, with the pump unit immersed in the liquid to be pumped. Designed with flexibility and reliability in mind, e-SVI is an industry-leading range, with flows up to 120 m³/h and sizes from 1 to 92, and is an effective solution to many needs in a wide variety of applications in the industrial, OEM and commercial building services markets. The e-SVI can be built with a variable number of stages to cover a wide range of duty points. It's configured to allow an additional number of blank stages, so that the height of the immersed part can accommodate different suction depths. It can serve as an interchangeable drop-in replacement for pumps with 3/4", 1"1/4 or 2" Rp threaded fittings, and for larger sizes a DN80 flanged discharge connection is standard. The e-SVI pump is available in a wide assortment of mechanical seals designed to handle high temperatures, high pressures and aggressive liquids with ease. Durable materials prevent downtime and prolong the life of the seal.

Industrial applications that demand the reliability of e-SVI multistage pumps are taken to new levels with hydrovar® X – with intelligent pump management and connectivity that offers maximum uptime and precision performance.



SCAN HERE FOR
TECHNICAL DETAILS

Performance Curve



Specifications

- Flow rate: up to 135 m³/h
- Head: up to 260 m
- Temperature of pumped liquid: up to +120°C
- Maximum operating pressure 25 bar (PN 25)
- The hydraulic performances meet the tolerances specified in ISO 9906:2012
- Environment temperature: -20° C to +50° C with no performance derating

e-HM

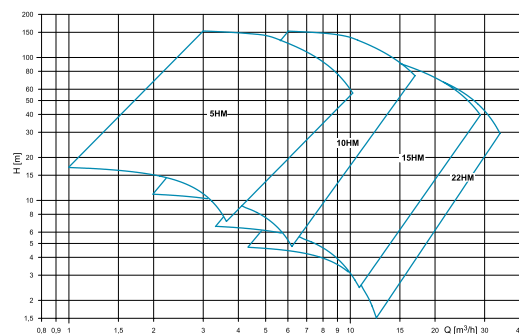
Enhance the reliability and energy-saving performance of e-HM horizontal multistage pumps with hydrovar® X – first-class pump management that optimises efficiency, connectivity and sustainability.

e-HM series is a versatile line of horizontal multistage pumps designed for best-in-class efficiency and superior durability to slash the total cost of ownership. Customizable options mean you get exactly the right pump for your application, exactly when you need it. The e-HM pump is available in 6 different sizes from 1 to 22 m³/h to cover a large requirement in flow rate with maximum efficiency. Whether operating in building services, industrial or residential applications, the e-HM is designed to meet your water needs. e-HM series is designed to handle water, free of suspended solids, in the civil, industrial and agricultural sectors. Its versatile field of application include pressure boosting and water supply systems, industrial washing and cleaning, circulation of hot and cold liquids for heating, cooling and conditioning systems, water treatment, food and beverage, and HVAC.



SCAN HERE FOR
TECHNICAL DETAILS

Performance Curve



Specifications

- Flow rate: up to 34 m³/h
- Head: up to 160 m
- Maximum operating pressure 16 bar (PN 16)
- Environment temperature: -20°C to +50°C with no performance derating
- Temperature of pumped liquid: up to +120°C
- The hydraulic performances meet the tolerances specified in ISO 9906:2012

GHV

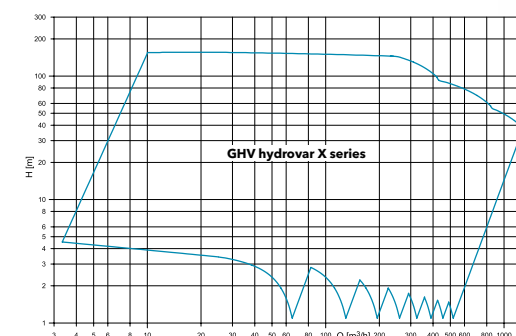
Reach a new level of performance, sustainability and connectivity with GHV with hydrovar® X – compact, reliable, all-in-one booster sets with intelligent pump management.

GHV series booster sets are fully automatic packages for water supply, water pressure increase and water transfer in condominiums, office buildings, hotels, public buildings, industries and other applications. GHV series is equipped with up to 8 vertical multistage e-SV hydrovar® X+ pumps; each of those can automatically control the booster set, granting the maximum reliability. Thanks to its unique compact design version, the GHV series makes installation possible even in tight spaces. GHV series is easy to program, designed for maximum energy efficiency and can communicate with BMS systems via Modbus or BACnet. GHV series is certified for use with potable water. GHV booster sets are also available with hydrovar® X+ Smart Controller for larger systems and applications.



SCAN HERE FOR
TECHNICAL DETAILS

Performance Curve



Specifications

- Flow rate: up to 1280 m³/h
- Head: up to 250 m
- Temperature of pumped liquid: up to +80°C
- Maximum operating pressure up to 25 bar (PN 25); higher pressure ratings available on request
- Environment temperature: -20° C to +40° C with no performance derating

e-NSC

Further strengthen the flexible, reliable and robust e-NSC series with hydrovar® X from Xylem – and achieve lower lifecycle costs across commercial building services applications.

The Lowara e-NSC end suction pumps combine high efficiency with high flexibility regarding installation, material options and temperature. This makes the e-NSC the natural choice for many different applications, spanning from CBS and HVAC and chiller systems, fire protection systems and a vast number of industrial applications. The new e-NSC series is a centrifugal end suction electro pump with single stage, axial flanged suction port, radial flanged discharge and horizontal shaft.

It is available in three different configurations:

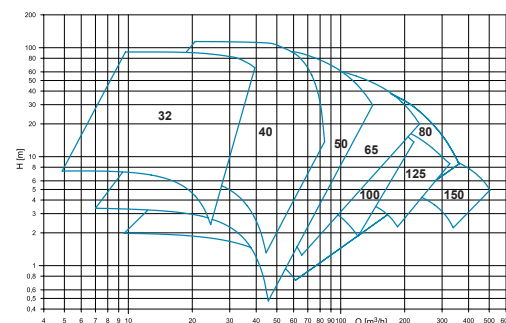
- Frame mounted (bare shaft or complete with basement, coupling and motor)
- Stub shaft
- Close coupled for compact footprint.

The best hydraulic and electric efficiency, the easy and quick maintenance, the robust high quality design permit to reduce the operation and maintenance cost and to save energy when the pump is working.



SCAN HERE FOR
TECHNICAL DETAILS

Performance Curve



Specifications

- Flow rate: up to 500 m³/h
- Head: up to 115 m
- Maximum operating pressure 16 bar (PN 16)
- Environment temperature: 20°C to +50°C with no performance derating
- Temperature of pumped liquid: up to +120°C *
- The hydraulic performances meet the tolerances specified in ISO 9906:2012

* extended temperature, version up to +140°C

e-SH

Enhance the versatile, high-performing, corrosion resistant e-SH pump series with hydrovar® X from Xylem, significantly reducing power consumption and lifetime running costs.

The e-SH Series is a high performance stainless steel centrifugal end suction electro pump with single stage, axial flanged suction port, radial flanged discharge, and horizontal shaft. The pumps are equipped with interchangeable mechanical seals, high efficiency motors, and have a back pullout design to ensure easy maintenance. The Lowara e-SH Series is suitable for many different applications demanding reliable and efficient products. The reliability, robustness, and AISI 316 material configuration of the e-SH series make it ideal for use in aggressive environments or for pumping of mildly aggressive fluids. The compact and reliable e-SH series is particularly suited to diverse OEM applications.

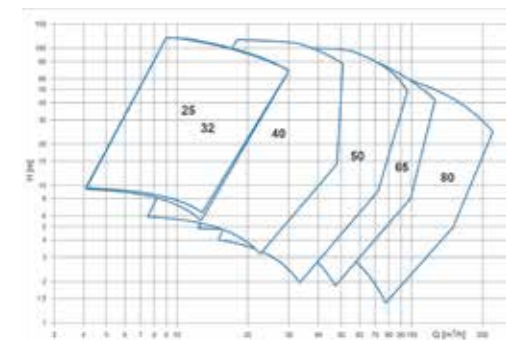
It is available in three different configurations:

- Frame mounted (bare shaft or complete with basement, coupling and motor)
- Stub shaft
- Close coupled for a compact footprint



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TECHNICAL DETAILS

Performance Curve



Specifications

- Flow rate: up to 210 m³/h
- Head: up to 135 m
- Maximum operating pressure 12 bar (PN 12)
- Environment temperature: 20°C to +50°C with no performance derating
- Temperature of pumped liquid: up to +120°C
- The hydraulic performances meet the tolerances specified in ISO 9906:2012



e-LNE and e-LNT

The Lowara e-LNE and e-LNT Series are in-line pumps designed to meet the Commercial Building Services and HVAC requirements, in terms of performance and energy saving and thanks to a compact footprint. Robust design, different bearing frame sizes and stainless steel replaceable wear rings ensure a long service life. The series are also designed for easy maintenance, thanks to a back pull out design which allows the impeller, adapter and motor to be extracted without disconnecting the pump body from the piping system.

The e-LNE Series is a single impeller centrifugal pump with in-line suction and delivery flanges, with sizes from DN 32 to DN 250.

The e-LNT Series is a dual volute centrifugal pump with in-line suction and delivery flanges, with sizes from DN 32 to DN 150. Both volutes are fitted with closed impellers linked by an automatic changeover valve. The two pumps can operate separately or in parallel.

Achieve the highest levels of reliability, economy and performance from e-LNE/T in-line pumps with hydrovar® X from Xylem – the straightforward, compact and flexible pump for HVAC and building services applications.

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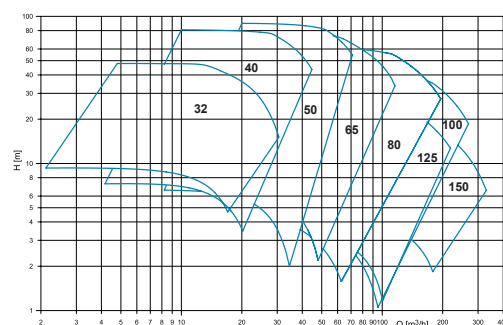


e-LNE



e-LNT

Performance Curve



Specifications

- Flow rate: up to 350* m³/h
- Head: up to 90 m
- Maximum operating pressure 16 bar (PN 16)
- Environment temperature: 20°C to +50°C with no performance derating
- Temperature of pumped liquid: up to +120°C **
- The hydraulic performances meet the tolerances specified in ISO 9906:2012

* single head working

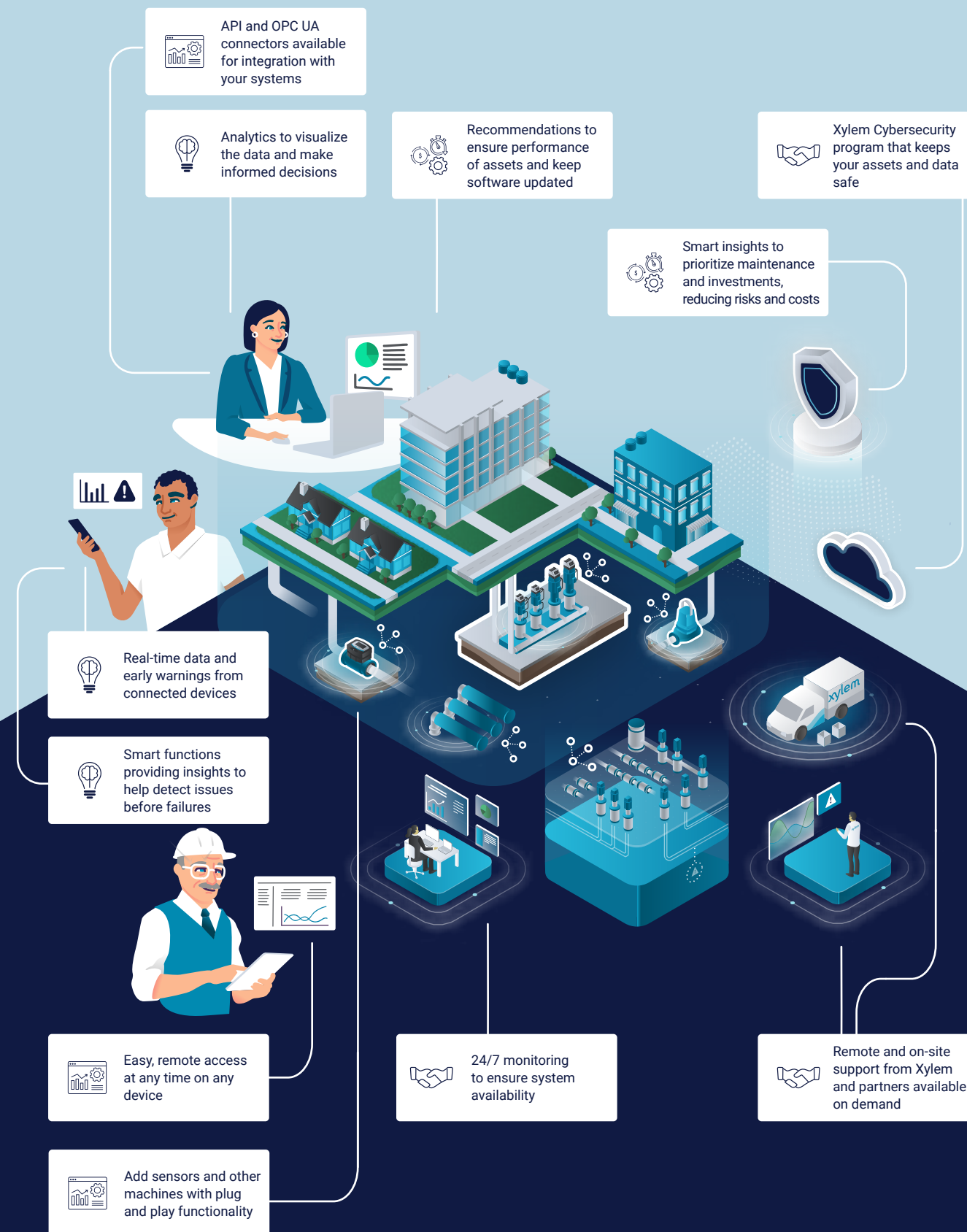
** extended temperature, version up to +140°C

Avensor

Cloud-based solutions for managing your water infrastructure assets



SCAN HERE
FOR MORE DETAILS



hydrovar® X+ Smart Controller

Designed to extend the capabilities of hydrovar® X+ to larger systems, the hydrovar® X+ Smart Controller is an intelligent solution designed especially for applications above 22kW. It offers the same trusted design and functionalities of hydrovar® X+, now with greater versatility, providing users with a scalable option without any added complexity.

Built with the same familiar design and user interface as hydrovar® X+, it ensures consistent user experience for both installers and operators, reducing training time and making system setup faster and more intuitive.

Whether mounted on a wall or embedded into a panel door, its IP66 enclosure provides reliable protection even in demanding environments.

Experience the best of both innovation and familiarity with the new hydrovar® X+ Smart Controller, engineered with the same trusted interface as hydrovar® X+, optimised for standard drives.

Whether you are looking for a new solution or upgrading an existing system, the Smart Controller delivers unmatched compatibility, simplicity & smart connectivity.



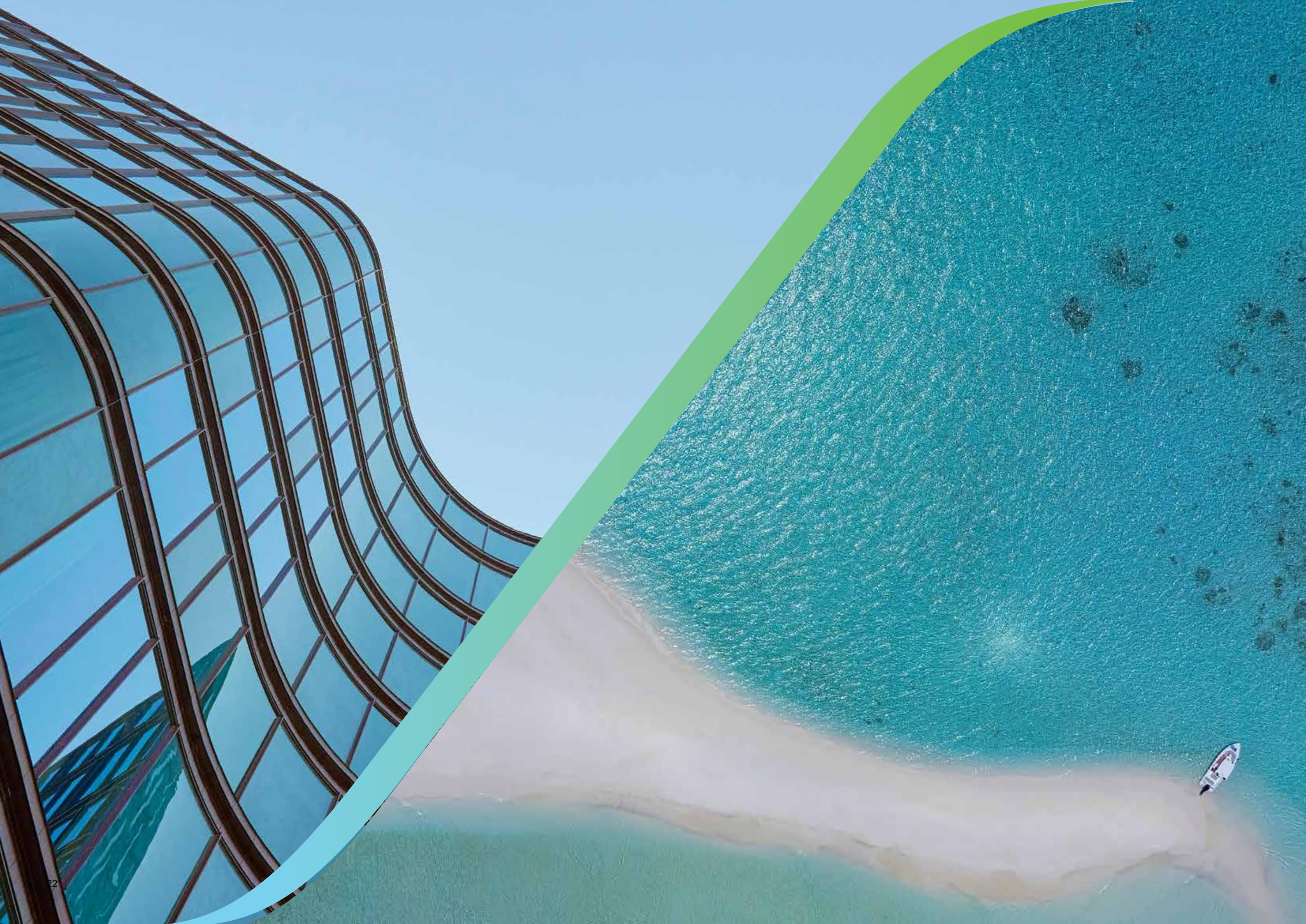
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Benefits

- Unified user experience - same look & logic as hydrovar® X+ with standardised interface and functionalities
- Universal drive control - compatible with any standard drive across all power and supply voltage ranges with no limitations
- Built-in multi-pump functionality - integrated intelligence allowing the control of up to 8 units, simplifying setup and reducing costs
- Seamless integration - smart connectivity with fewer cables and fast, guided plug & play commissioning via the built-in user interface or smartphone app streamlining the setup and reducing installation time
- Standard protocol compatibility - supports standard communication protocols including BACnet MS/TP and Modbus RTU, for easy integration with building management systems
- Flexible dual mounting options - support both wall-mounted and panel mounted installations with IP66 rated enclosures
- Installation flexibility - powered either from the mains or directly from the drive eliminating the need for an external power source



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TECHNICAL DETAILS



Xylem |'zīləm|

- 1) The tissue in plants that brings water upward from the roots;
- 2) a leading global water technology company.

Xylem is a leading global water solutions company dedicated to advancing sustainable impact and empowering the people who make water work every day. Xylem connects diverse capabilities and innovative technologies to provide tailored solutions across the entire water cycle. From moving, treating and measuring water to optimizing and maintaining water systems, Xylem collaborates with customers to solve their most critical challenges. Together, through partnerships with utilities, industrial manufacturers, building operators, and communities, we are building a more water-secure world.

For more information on how Xylem can help you, go to www.xylem.com